

INFINITE SERIES: Popular Limits

$$\lim_{n \rightarrow \infty} \frac{\ln n}{n} = 0$$

$$\lim_{n \rightarrow \infty} \sqrt[n]{n} = 1$$

$$\lim_{n \rightarrow \infty} x^{1/n} = 1$$

$$\lim_{n \rightarrow \infty} x^n = 0, |x| < 1$$

$$\lim_{n \rightarrow \infty} \left(1 + \frac{x}{n}\right)^n = e^x, \text{ any } x$$

$$\lim_{n \rightarrow \infty} \frac{x^n}{n!} = 0, \text{ any } x$$